No. 667,518. Patented Feb. 5, 1901.

E. D. HARRINGTON.

CAPSULING MACHINE.

(Application filed July 19, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

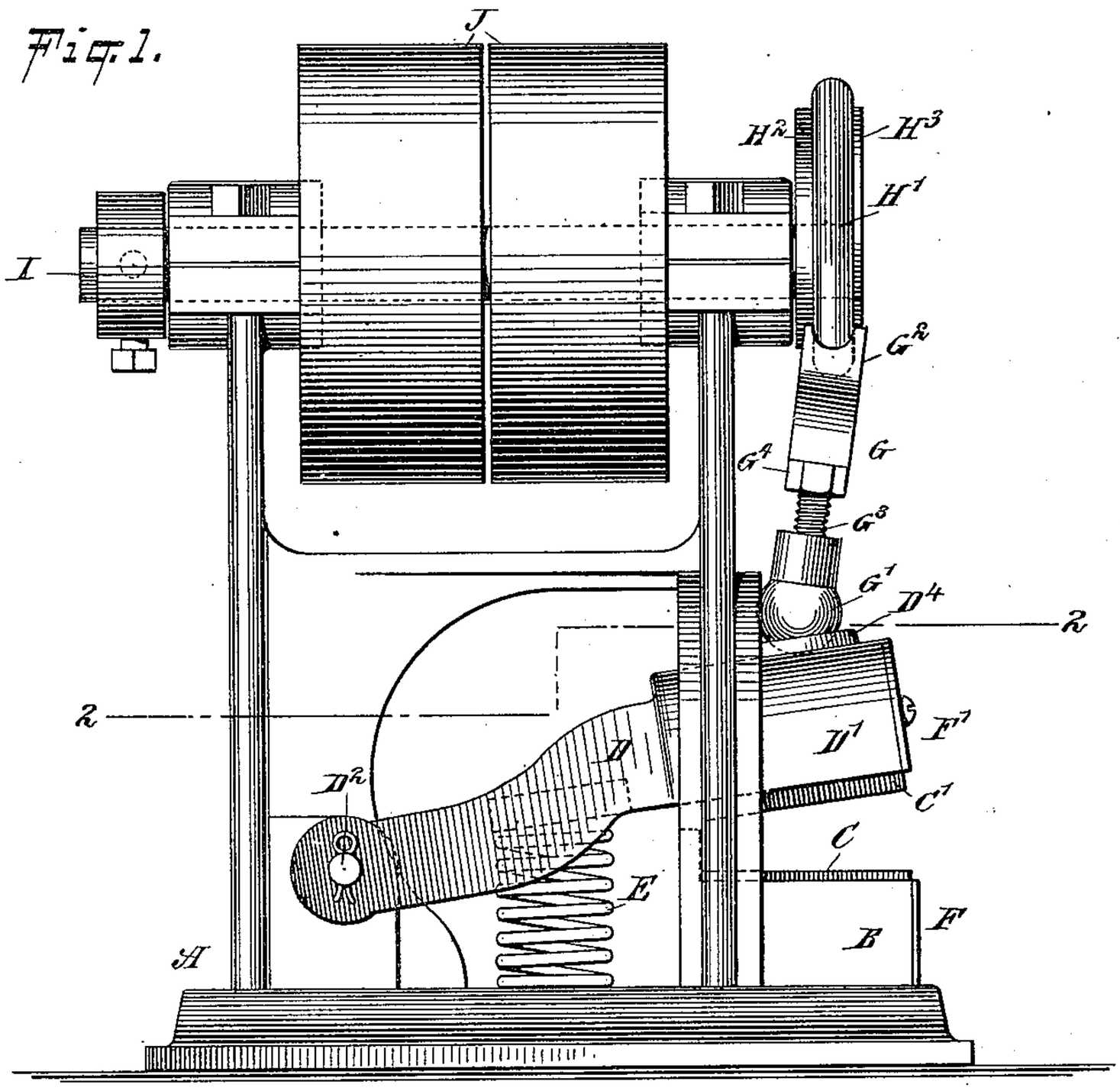

Fig. 2.

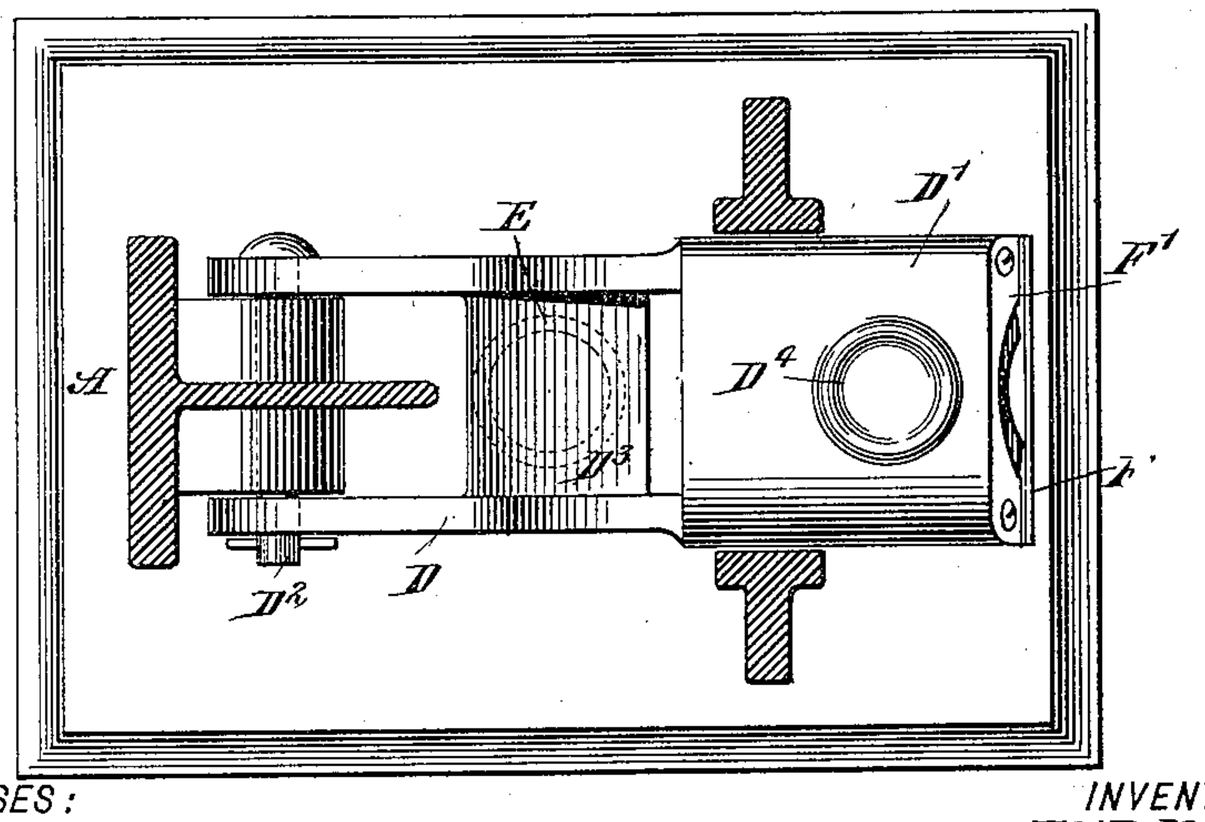

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Fig. 5.

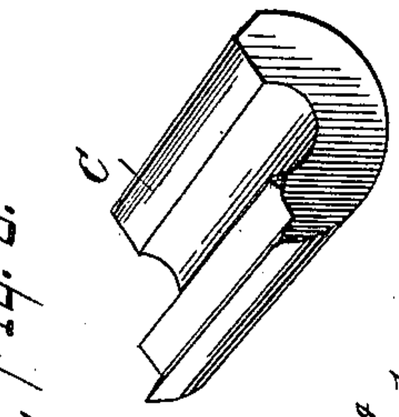


Fig. 4.

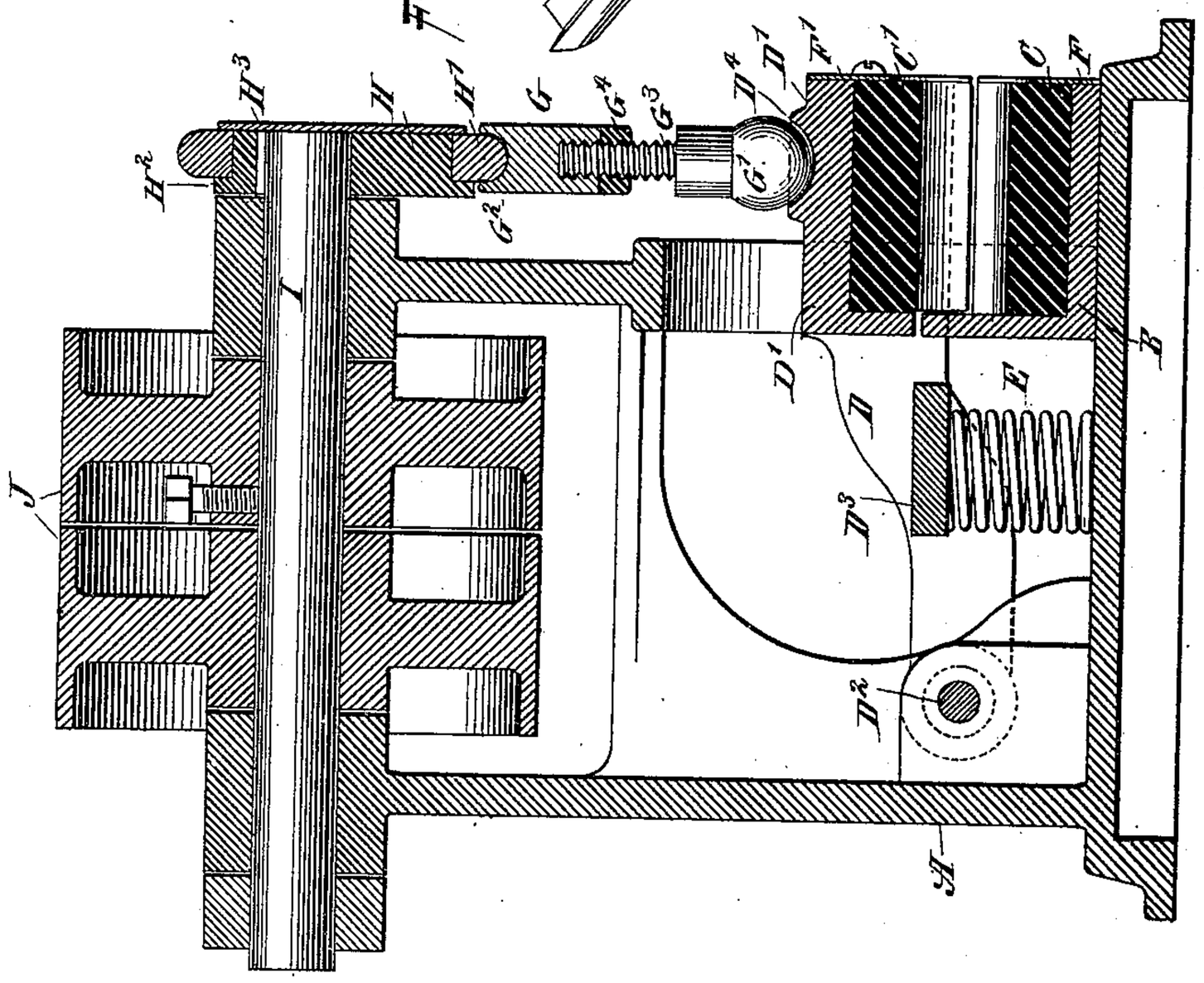
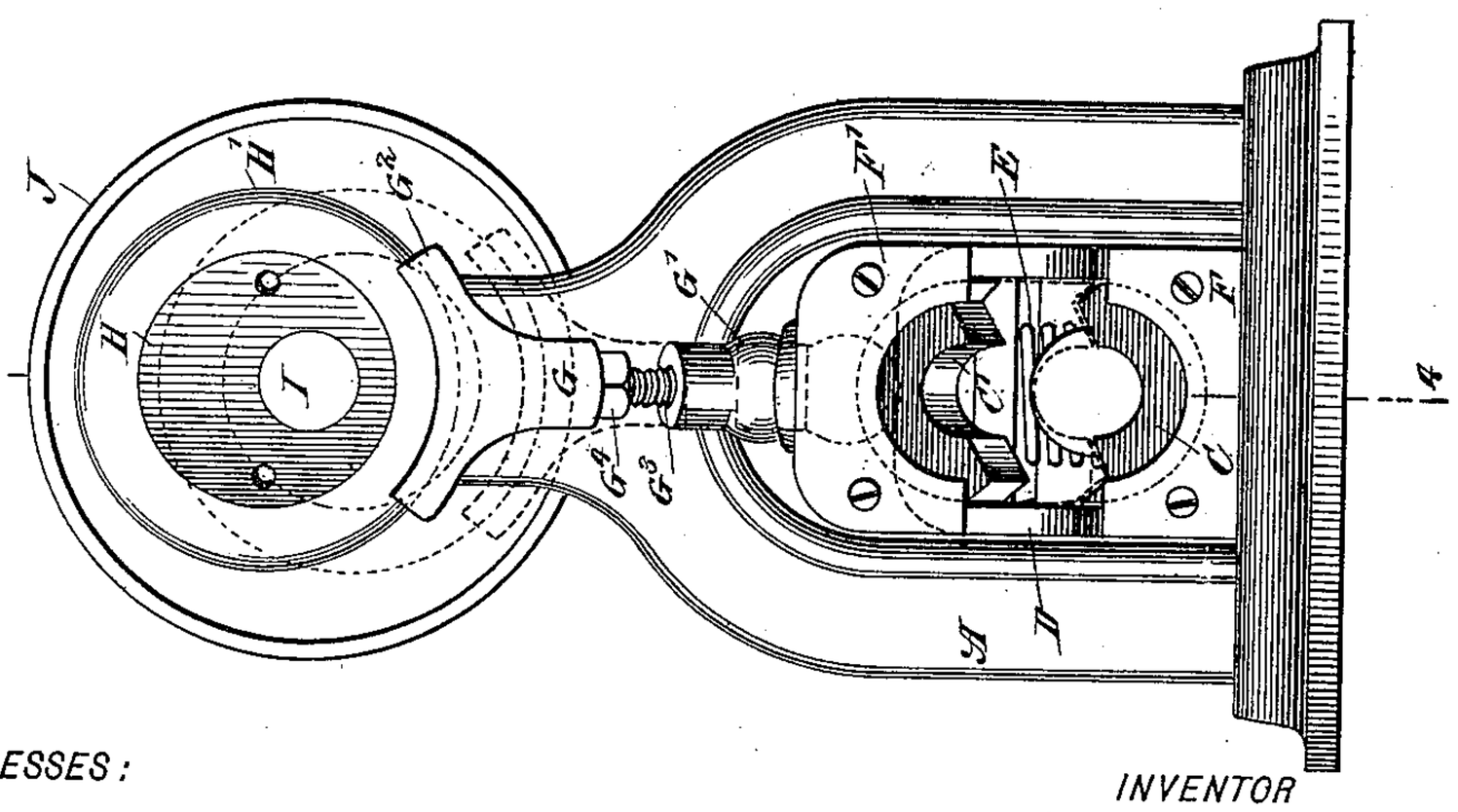


Fig. 3.



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UNITED STATES PATENT OFFICE.

ELI DAY HARRINGTON, OF WESTFIELD, NEW YORK.

CAPSULING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 667,518, dated February 5, 1901.

Application filed July 19, 1900. Serial No. 24,174. (No model.)

To all whom it may concern:

Be it known that I, ELI DAY HARRINGTON, a citizen of the United States, and a resident of Westfield, in the county of Chautauqua and State of New York, have invented a new and Improved Capsuling-Machine, of which the following is a full, clear, and exact specification.

The invention relates to machines for covering the stoppered ends of bottles, jars, and other similar receptacles with soft-metal caps; and the object of the invention is to provide a new and improved capsuling-machine which is simple and durable in construction, very effective in operation, readily adjustable for different-sized bottles, and arranged to securely and accurately attach the cap to the neck of a bottle without danger of breaking the bottle.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is a sectional plan view of the same on the line 2 2 in Fig. 1. Fig. 3 is a front elevation of the same with the eccentric-plate removed. Fig. 4 is a sectional side elevation of the same on the line 4 4 in Fig. 3, and Fig. 5 is a perspective view of one of the elastic jaws.

The improved capsuling-machine is mounted on a suitably-constructed frame A, to the base of which is bolted or secured a cup-shaped receptacle B, containing a jaw C, of rubber or other elastic material, and operating in conjunction with a movable jaw C′, likewise made of rubber or other elastic material and contained in the free cup-shaped end D′ of a lever D, fulcrumed at D^2 on the main frame A. The side edges of the jaws C C′ are beveled and arranged to move in contact with each other when the lever D swings into a lowermost position to insure a firm and perfect fitting of the cap upon and around the neck of the bottle.

The lever D is normally held in an uppermost position by a spring E, resting on the base of the frame A and pressing on a cross-bar D^3 of the lever D to hold the jaws in an open position, and thereby allow of conveniently placing the cap and the bottle in position between the jaws. In order to hold the jaws C and C′ in position, suitable removable front plates F F′ are provided and secured to the cup-shaped receptacle B and the front end of the lever D, respectively.

In order to give movement to the lever, the following device is provided: In the top of the free end of the lever D is formed a socket D^4, engaged by the ball G′ of a connection G, having a segmentally-grooved upper end G^2, engaged by a ring H′, loosely held on an eccentric-disk H, secured on a shaft I, journaled in suitable bearings in the upper end of the frame A, said shaft carrying fast and loose pulleys J, connected with other machinery for rotating the shaft when the machine is to be used. The connection G can be lengthened or shortened to press the jaw C′ more or less in contact at its side edges with the jaw C, and for this purpose said connection is made in two parts, of which the ball G′ forms one part and has a threaded shank G^3, screwing in the upper end G^2 of the connection, and a nut G^4 for locking the shank G^3 in place on the end G^2 after the desired adjustment is made between the two parts of the connection.

It is evident that when the shaft I is rotated the eccentric-disk H by the ring H′ causes a downward movement of the connection G, and as the latter has a ball-and-socket-joint connection with the lever D it is evident that a downward-swinging movement is given to the lever to cause the jaws C C′ to properly press the cap around the bottle-neck, as previously explained.

The ring H′ fits against an annular shoulder H^2 on the eccentric-disk H, and the front face of said ring is engaged by a disk or plate H^3, screwed or otherwise fastened to the face of the eccentric-disk H, as will be readily understood by reference to Fig. 4, said shoulder H^2 and the plate H^3 holding the ring in proper position—that is, against lengthwise movement.

By having the loose and adjustable connection G above described it is evident that the

operator is enabled to set the jaws C C′ in the desired relation one to the other, according to the size of the bottle-neck under treatment.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a stationary jaw, a swinging jaw, a rotating drive-shaft the axis of which is transverse to the axis of movement of the swinging jaw, and a connection between the drive-shaft and the swinging jaw to drive the latter, such connection comprising a ball and socket permitting the connection to accommodate itself to the swinging movement of the jaw.

2. The combination of a stationary jaw, a swinging jaw, a rotating drive-shaft transverse to the axis of the movement of the swinging jaw, an eccentric on the drive-shaft, and a connection for driving the swinging jaw from the eccentric, such connection comprising a ball and socket permitting the connection to accommodate itself to the swinging movement of the jaw.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELI DAY HARRINGTON.

Witnesses:
H. N. THOMPSON,
C. E. BROWN.